ABSTRACT

A liquid crystal projector is composed of a luminous device 50, a parallel-conversion optical system 60, an optical switch 70, and a display optical system 80, in order to obtain a simple optical system and a high light-utilization rate of the liquid crystal projector. The luminous device 50 applies LD arrays 51, 52 and 53 composed of semiconductor lasers 54 arrayed lengthwise and crosswise. Output beams from the semiconductor lasers 54 are converted into parallel beams through lens arrays 61, 62 and 63. Since the output beams from the semiconductor lasers 54 are linearly polarized beams of wave P or wave S, the polarization conversion optical system is unnecessary. By optionally combining the semiconductor lasers 54, it is possible to make the shape of the LD array 51, 52 or 53 be the same as the light-utilization shape of red-transmission type liquid crystal panel 71, green-transmission type liquid crystal panel 73.